Appln. No. 10/629,048 Filed: July 28, 2003

In the claims:

- 1-16. (Cancelled)
- 17. (Currently Amended) A method of extracting multiple tissue samples from a subject, comprising

inserting into the subject a volume of a tissue an instrument comprising a sharp distal end and a plurality of controllable tissue sampling devices each of said devices being located in a different position in an array along a longitudinal axis of a housing, each of said sampling devices comprising an isolated chamber, the volume of said isolated chamber being less than 1.2 millimeters;

contacting a sampling device with deployment signal, said signal being selected from the group consisting of an electrical, optical, pneumatic, hydraulic, RF- transmitted, inductive, magnetic, thermal or sonic signal, said signal causing an opening of said chamber;

removing [a] tissue samples from an anatomical locations at varying depths within said tissue adjacent to said chamber; and

sealing said chamber.

- 18. (Original) The method of claim 17, wherein said sampling devices are deployed simultaneously.
- 19. (Original) The method of claim 17, wherein each of said sampling devices is deployed temporally.
- 20. (Currently Amended) A method of extracting multiple tissue samples from a subject, the method comprising:

inserting the instrument of claim 1 into the subject into a volume of a tissue an instrument comprising a sharp distal end and a plurality of controllable tissue sampling devices each of said devices being located in a different position in an array along a longitudinal axis of a housing, each of said sampling devices comprising an isolated chamber, the volume of said isolated chamber being less than 1.2 millileters;

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heating the plurality of sampling devices, heating causing actuation of a mechanical portion of the plurality of sampling devices, such that a mechanical portion of the sampling devices collects [a] samples from varying depths within said tissue and retains the samples; depositing the samples into a local chamber; and removing the instrument from the subject.

- 21. (Original) The method of claim 20, wherein heating comprises passing electrical current through a portion of the extracting device.
- 22. (Original) The method of claim 20, wherein collecting and retaining the sample comprises applying a differential pressure to the local chamber and sucking the sample into the local chamber.
- 23. (Original) The method of claim 20, further comprising ejecting the samples by pressurizing the chamber.
- 24. (Withdrawn) The method of claim 20, wherein collecting and retaining the sample comprises scooping the sample from the subject by pivoting a scoop from a rest position after heating the scoop.
- 25. (Withdrawn) The method of claim 20, wherein collecting and retaining the sample comprises expanding a volume of a fluid in a chamber and causing a set of jaws to deploy from the chamber.
- 26. (Original) The method of claim 20, further comprising imaging a location of the sample fiberoptically.
- 27. (Previously Presented) The method of claim 1, wherein the volume of said isolated chamber is selected from the group consisting of 0.005, 0.01, 0.05, 0.1, 0.5, and 0.75 cubic millimeters.

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- 28. (Previously Presented) The method of claim 17, wherein the volume of said isolated chamber is selected from the group consisting of 0.005, 0.01, 0.05, 0.1, 0.5, and 0.75 cubic millimeters.
- 29. (Currently Amended) The method of claim [1] <u>20</u>, wherein said instrument comprises greater than about 50 of said isolated chamber.
- 30. (Currently Amended) The method of claim 17, wherein said instrument comprises greater than about 50 of said isolated chamber.
- 31. (New) The method of claim 17, wherein said tissue sampling devices remove samples at varying depths in said tissue to map variation in a given line or direction.
- 32. (New) The method of claim 20, wherein said tissue sampling devices remove samples at varying depths in said tissue to map variation in a given line or direction.
- 33. (New) The method of claim 17 wherein said tissue comprises a diseased area.
- 34. (New) The method of claim 20 wherein said tissue comprises a diseased area.
- 35. (New) The method of claim 17 wherein said tissue comprises a tumor.
- 36. (New) The method of claim 20 wherein said tissue comprises a tumor.
- 37. (New). The method of claim 17, wherein multiple linear samples are taken to evaluate the extent of change of tissue characteristics.
- 38. (New) The method of claim 20, wherein multiple linear samples are taken to evaluate the extent of change of tissue characteristics.
- 39. (New) The method of claim 35, wherein multiple linear samples are taken to evaluate the extent of tumor growth.

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40. (New) The method of claim 36, wherein multiple linear samples are taken to evaluate the extent of tumor growth.